



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/817,031 | 03/27/2001 | Xiaoning Nie | P20721.P05 | 7309 |

7055 7590 05/16/2005

GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

PHAN, TAM T

ART UNIT PAPER NUMBER

2144

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,031

Applicant(s)

NIE, XIAONING

Examiner

Tam (Jenny) Phan

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Amendment received on 10/14/2004 and 12/23/2004 have been entered. Claims 1-20 are cancelled. Claims 21-29 are newly added.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
3. The effective filing date for the subject matter defined in the pending claims which has support in parent German Application No. 10016236.3 in this application is 03/31/2000. Any new subject matter defined in the claims not previously disclosed in parent 10016236.3, is entitled to the effective filing date of 03/27/2001.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egbert (U.S. Patent Number 6,356,551) in view of Colby et al. (U.S. Patent Number 6,449,647), hereinafter referred to as Colby, and further in view of Muller et al. (U.S. Patent Number 6,246,680), hereinafter referred to as Muller.
6. Regarding claim 21, Egbert disclosed a server module for a modularly designed server comprising: at least one data processing unit for data processing data packets; at least one addressable communication interface for connecting the server module to an

Art Unit: 2144

external network via which the data packets are transmitted; a switching interface for connecting the server module to a switching device of the modularly designed server; and having a routing unit for determining a server module address using a routing table (Figures 4, 7A-7B, column 3 lines 37-65, column 4 lines 31-62, column 5 lines 5-34, column 11 lines 36-54).

7. Egbert taught the invention substantially as claimed. However, Egbert did not expressly teach a routing table on the basis of the utilization level of the data processing units of all the server modules of the modularly designed server.

8. Egbert suggested exploration of art and/or provided a reason to modify the method with a routing table on the basis of the utilization level of the data processing units of all the server modules of the modularly designed server (Abstract, column 7 lines 42-57, column 8 lines 4-11).

9. Colby disclosed a routing table on the basis of the utilization level of the data processing units of all the server modules of the modularly designed server (Abstract, column 2 lines 54-64, column 6 line 46 – column 7 line 23, column 9 lines 36-65).

10. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the server module of Egbert with the teachings of Colby to include the routing table on the basis of the utilization level of the data processing units of all the server modules of the modularly designed server in order to directs the content request to a best-fit server (Colby, Abstract, column 2 lines 54-64) since a server may gracefully absorb a content request spike beyond the capacity of the server by directing content requests to other servers. This allows mirroring of critical content in

Art Unit: 2144

distributed data centers, with overflow content delivery capacity and backup in case of a partial communications failure (Colby, column 3 lines 43-51).

11. The combination of Egbert and Colby taught the invention substantially as claimed. However, the combination of Egbert and Colby did not expressly teach each server module having a switching interface that connects to the switching device and a routing calculation unit that checks whether an incoming data packet addresses a server module of the server, said routing calculation unit determining a server module address of the server module of the server using a routing table.

12. Egbert suggested exploration of art and/or provided a reason to modify the combined method of Egbert and Colby with additional features such as the switching interface and the routing calculation unit (Figure 4 sign 70, column 4 lines 44-lines 57, column 5 lines 4-13, column 23 lines 1-7).

13. Muller disclosed a modularly designed server having a plurality of server building block [module] and a switching fabric [device] for transmitting and receiving packets wherein each server building block having a switching interface that connects to the switching device (Abstract, Figure 2, column 2 lines 1-30, column 3 lines 36-50) and a routing calculation unit that checks whether an incoming data packet addresses a server module of the server, said routing calculation unit determining a server module address of the server module of the server using a routing table (Abstract, column 3 lines 36-50, column 6 lines 22-lines 37, column 7 lines 37-48).

14. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the combined server module of Egbert and Colby with the teachings of Muller to include the switching interface and the routing calculation unit in

Art Unit: 2144

order to provide a cost effective and high performance network device building block (Muller, column 1 lines 35-38) since it would be advantageous to provide a network device building block that linearly scales its performance (Muller, column 1 lines 38-43).

15. Regarding claim 22, Colby disclosed a modularly designed server wherein the server module data processes data packets of a particular prescribed application type (column 1 lines 43-64, column 2 lines 5-13, column 6 lines 13-33, column 9 lines 5-24).

16. Regarding claim 23, Colby disclosed a modularly designed server wherein the data packet contains information of the particular prescribed application type, the server module address being calculated in accordance with the particular prescribed application type of the transmitted data packet (column 1 lines 43-64, column 2 lines 5-13, column 6 lines 13-33, column 9 lines 5-24).

17. Regarding claim 24, Egbert disclosed a modularly designed server wherein said communication interface includes a buffer that temporarily stores transmitted data packets (column 4 lines 44-50, column 5 lines 19-34, lines 53-65).

18. Regarding claim 25, Egbert and Colby disclosed a modularly designed server wherein said routing table is constantly updated in an associated routing server module of the modularly designed server (Egbert, column 16 lines 17-59; Colby, column 7 lines 1-23, column 8 lines 20-35).

19. Regarding claim 26, Egbert and Colby disclosed a modularly designed server wherein said routing server module transmits a current routing table to other server modules near the switching interface (Egbert, column 16 lines 17-59; Colby, column 7 lines 1-23, column 8 lines 20-35).

Art Unit: 2144

20. Regarding claim 27, Colby disclosed a modularly designed server wherein said routing server module collects and evaluates data relating to the utilization level of the data processing units of all server modules of the modularly designed server (column 2 lines 14-27, column 5 lines 28-47, column 6 line 44 – column 7 line 23, column 8 lines 21-35, column 9 lines 36-65, column 14 lines 13-28).

21. Regarding claim 28, Colby disclosed a modularly designed server wherein the routing server module updates the routing table on the basis of the evaluated utilization level data, the assigned application types of the other server modules and priority information data for the transmitted data packet (column 2 lines 14-27, column 3 lines 1-9, column 6 line 44 – column 7 line 23, column 8 lines 21-35, column 9 lines 36-65).

22. Regarding claim 29, Colby disclosed a modularly designed server wherein a data processing process executed within one server module is transmitted to data processing units of other server modules when the utilization level of the data processing unit of a particular server module exceeds a predetermined level (column 3 lines 42-58, column 9 lines 5-24, column 14 lines 14-27).

23. Since all the limitations of the claimed invention were disclosed by the combination of Egbert and Colby, claims 21-29 are rejected.

Response to Arguments

24. Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

25. In response to applicant's argument that the combination of Egbert and Colby did not teach the switching interface and the routing calculation unit as amended. It is

Art Unit: 2144

submitted that Muller disclosed the switching interface and the routing calculation unit as claimed and Egbert and Colby are relied upon for rejecting the other claimed limitations.

26. As the rejection reads, Examiner asserts that the combination of these teachings render the claimed invention obvious.

Conclusion

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam (Jenny) Phan whose telephone number is (571) 272-3930. The examiner can normally be reached on M-F 9:00-5:00.

Art Unit: 2144

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Wiley
SPE
Art Unit 2143
(571) 272-3923

tp
May 2, 2005



DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100